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BIRTH ATLAS

SECOND EDITION

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NEW YORK

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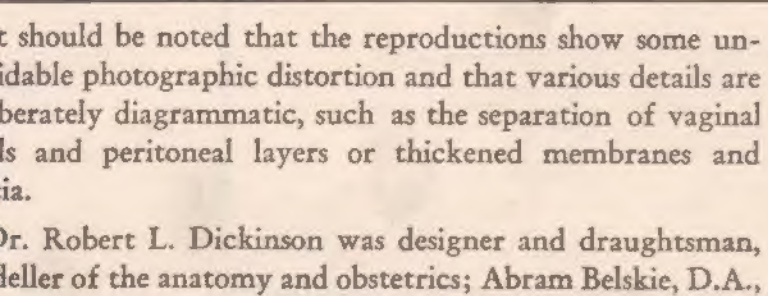
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Reproductions of Twenty-four Life-Size Sculptures of Fertilization,
Growth, Stages of Labor, and Involution

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654 Madison Avenue, New York 21, N. Y.
Second Edition, 1943, Reprinted 1946, 1947, 1948, 1950.

A GRASP of the third dimension is essential when teaching the anatomy and physiology of reproduction. It is difficult to describe depth or represent things in the round means of flat drawings. The pictures of the "Birth Atlas" present a very striking illusion of third dimension. The reproductions are photographs of life-size sculptures showing the growth of the baby step by step from conception until birth and then the slow return of the uterus to normal size and position.

The models differ from the usual textbook illustrations because of their live look; and upstanding womb-at-work and pulled-up cervix. This is due to their development from selections among thousands of X-rays, some made especially for this three dimensional research in Sloane, New Haven, Johns Hopkins, Bronx, and Harlem Hospitals. Doctors Caldwell, Moloy, Ball, Thoms, Dippel, and Snow gave much time and counsel to the project, which was carried out in the Studio of the New York Academy of Medicine.



the sculptor; and Malvina Hoffman, the consultant. The late Dr. Vladimir Fortunato gave valued early aid. The photographs were made by the DeWitt Ward Studio. H. J. Harris helped in retouching the photographs and Dr. E. Schuchardt made the line drawings. This pioneer project was undertaken for the Maternity Center Association and was exhibited by them at the New York World's Fair.

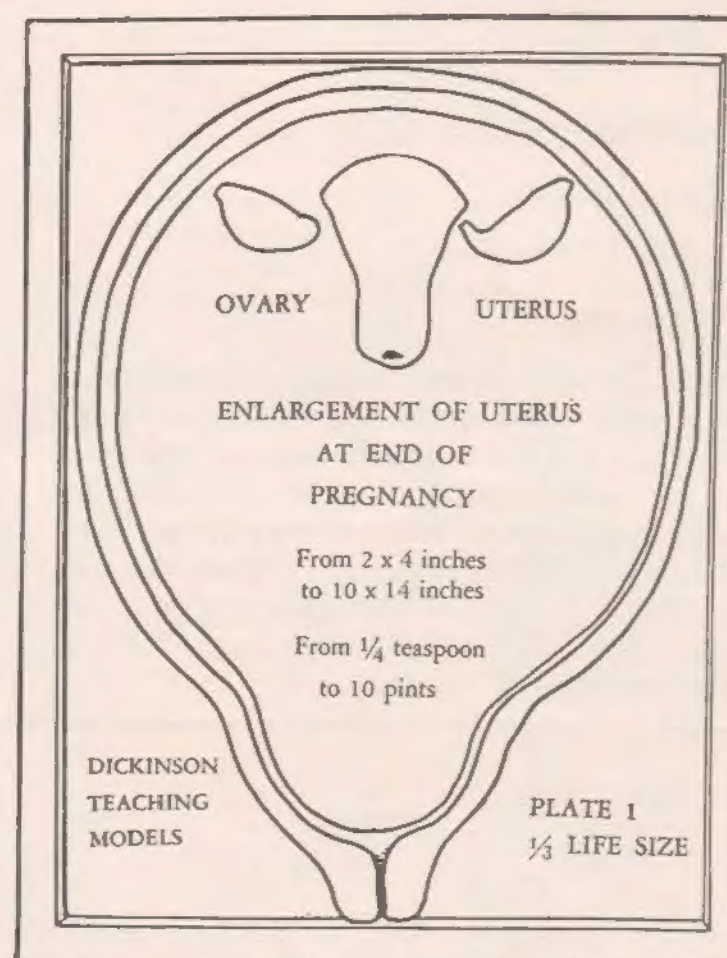
life-size
throughout

Dickinson series
of teaching models

ABRAM
BELSKY

ROBERT L. ATON
DICKINSON

MANHATTAN CENTER ASSOCIATION
NEW YORK 1940



WHEN the mother misses the first expected menstruation (four weeks menstrual age) the embryo has just begun to develop and the whole product of fertilization is about the size of a BB shot.

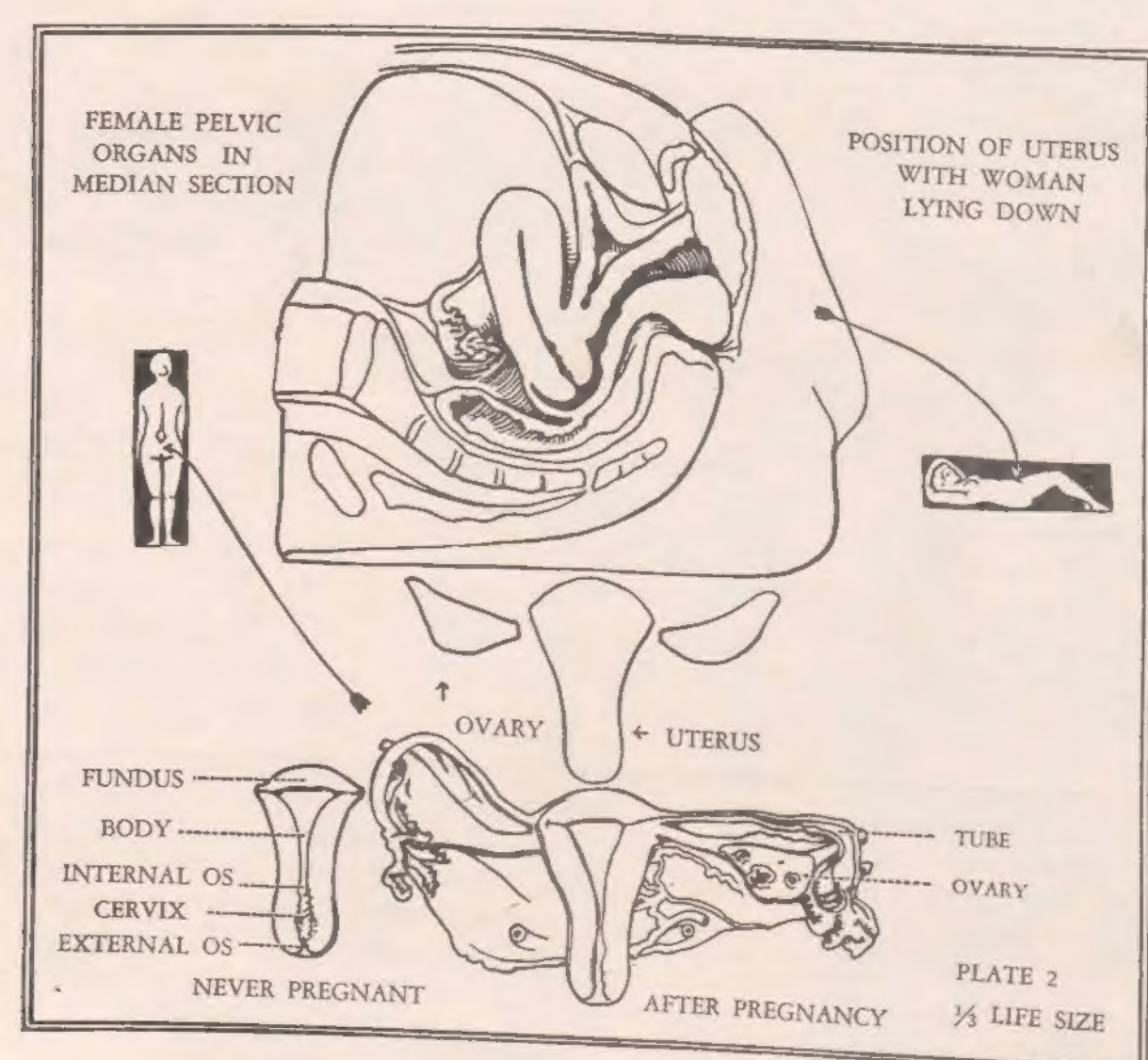
At six weeks, the embryo is beginning to take form. The head region shows the optical vesicle and the rudiments of the inner ear. The heart is enlarging and beating and the blood is circulating. The fetus has a distinct tail and the leg buds have appeared.

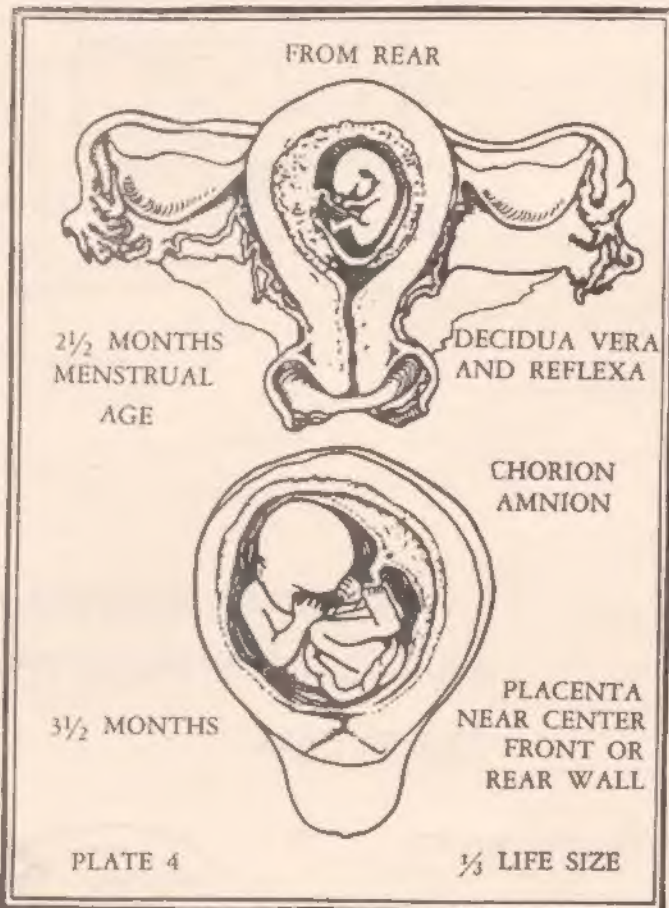
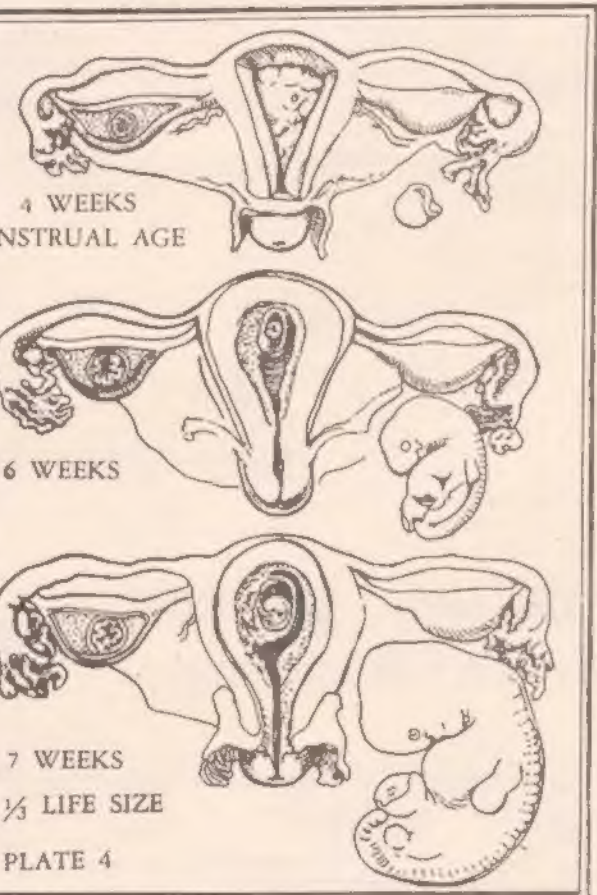
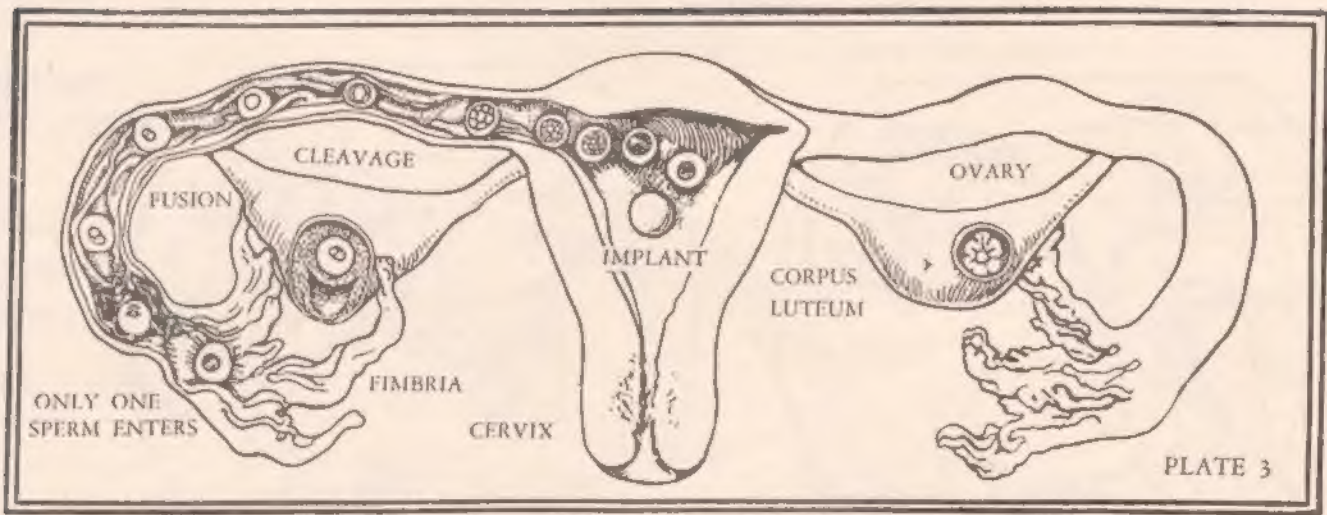
At seven weeks, the head is larger; the arms are beginning to form; the internal organs are enclosed within the body and the tail is growing smaller.

At two and one-half months, the fetus is a big-headed, pot-bellied tiny creature that shows its relation to the human race but looks like a very primitive member. The tail has almost disappeared; the hands and feet have begun to take form, and the face has eyes, nose and mouth.

At three and one-half months, the fetus looks like a baby with its eyes closed. It has a flat nose, an oversized head, short arms and legs. Its hands and feet have webbed fingers and toes. The fetus with its membranes fills the uterine cavity; its internal sex organs are beginning to take shape. Muscles have developed under the skin and the tooth buds for the temporary teeth are formed.

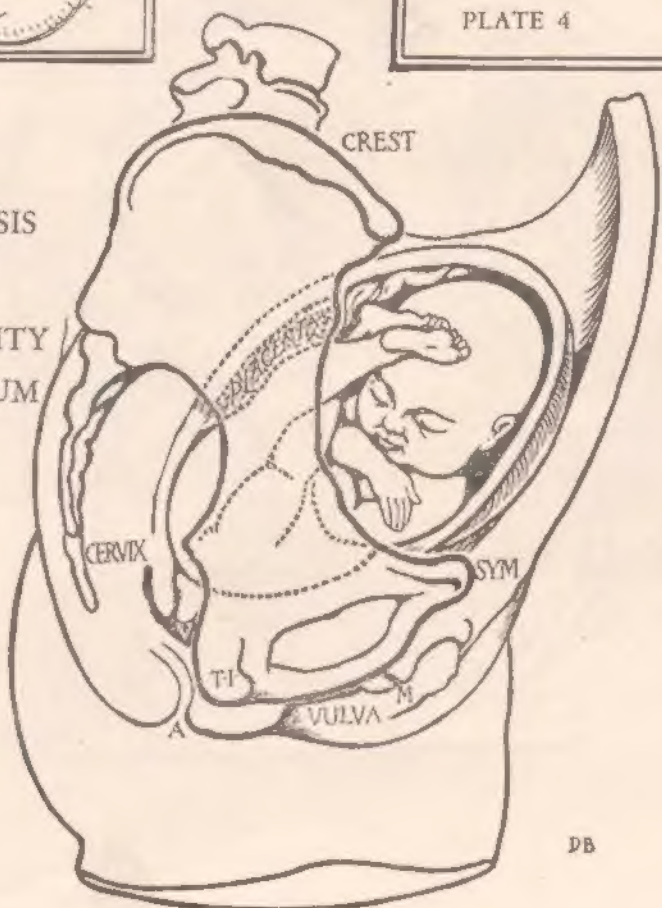
At four and one-half months, the baby weighs about 6 ounces and is about 8 inches long. The skin is red and thin and the fat has not begun to form under the skin. Its sex is apparent from its external sex organs. It has begun to make spontaneous movements but they are too feeble to be felt by the mother. Early in the fifth month the doctor can hear the baby's heart-beat and the mother becomes conscious of the baby's movements.





SYM. SYMPHYSIS
V. VAGINA
T. I. TUBEROSITY
OF ISCHIUM
A. ANUS
M. MEATUS

FOUR AND ONE-HALF
MONTHS: MOTHER IN
STANDING POSTURE.



HEART CAN BE
HEARD BEFORE THIS
PLACENTA FACES
BABY.

9618.2
Wool

life-size
throughout

Dickinson series
of teaching models

ON FERTILIZATION
STEPS OF GROWTH
STAGES OF LABOR
AND INVOLUTION

ABRAHAM
BEILSKIE

ROBERT L. DICKINSON

MATERNITY CENTER ASSOCIATION
NEW YORK 1940

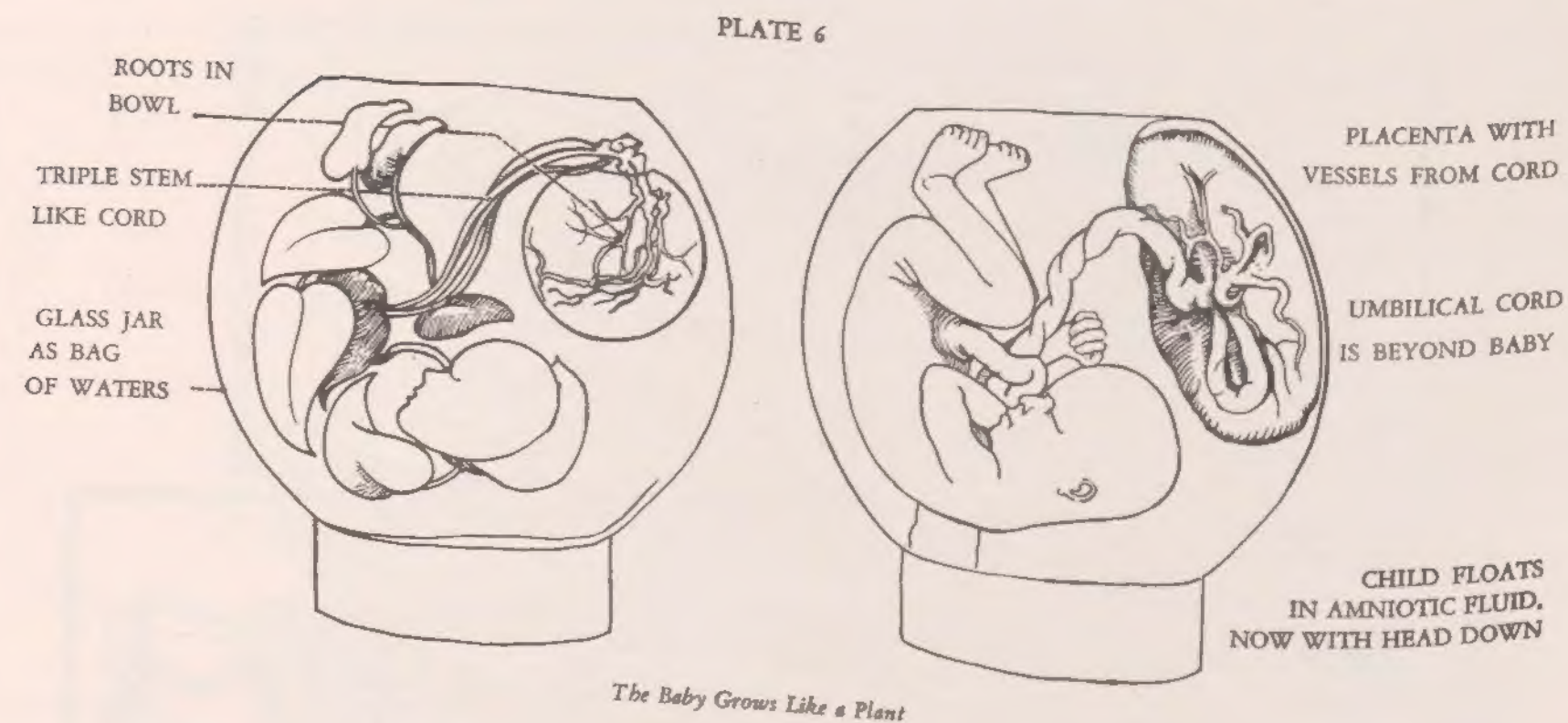
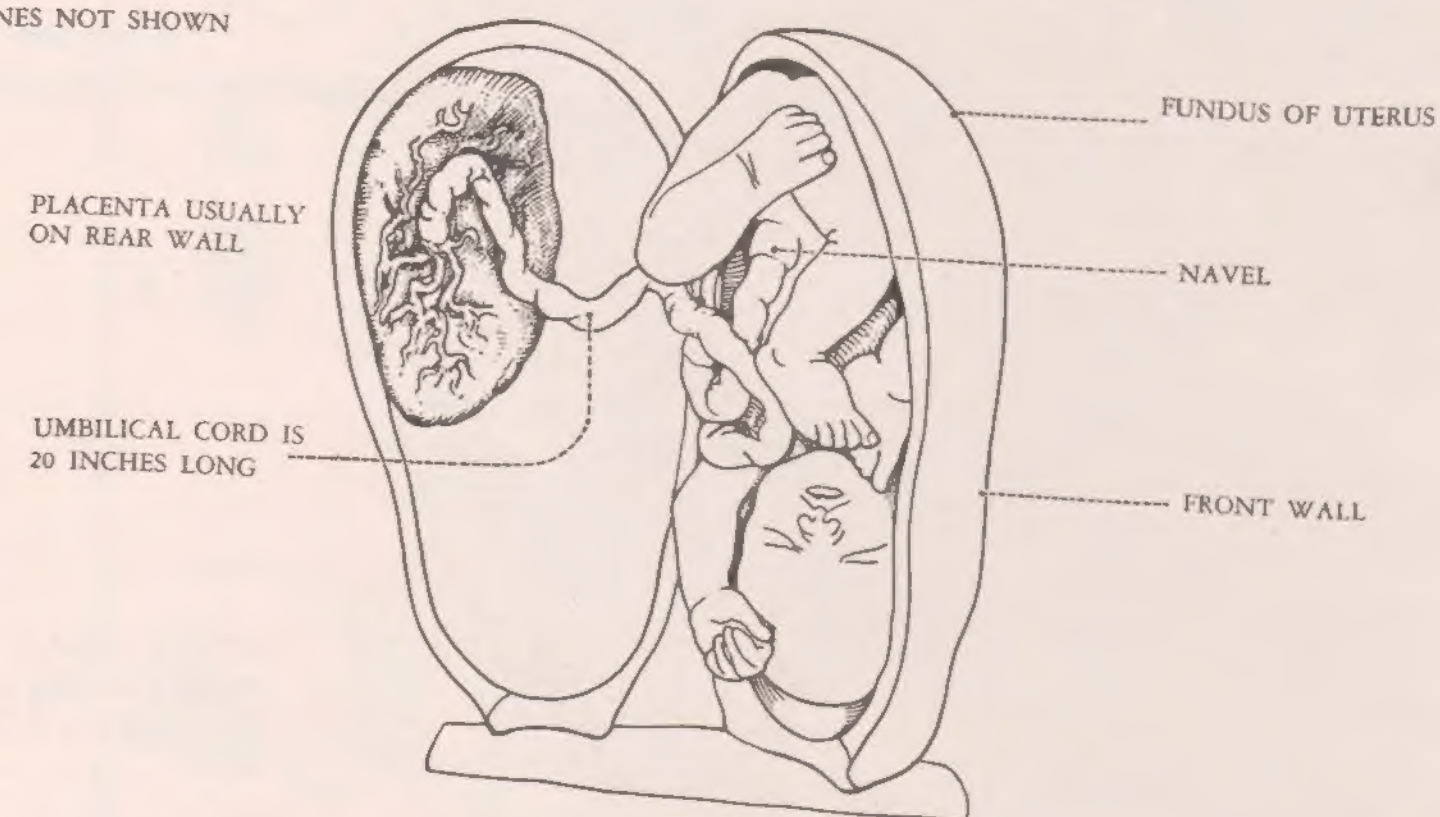


PLATE 7

AT SEVEN MONTHS, THE BABY STILL LOOKS OLD AND WRINKLED. IT IS LIKELY TO LIVE IF BORN AT THIS TIME AND GIVEN PROPER CARE.

$\frac{1}{2}$ LIFE SIZE

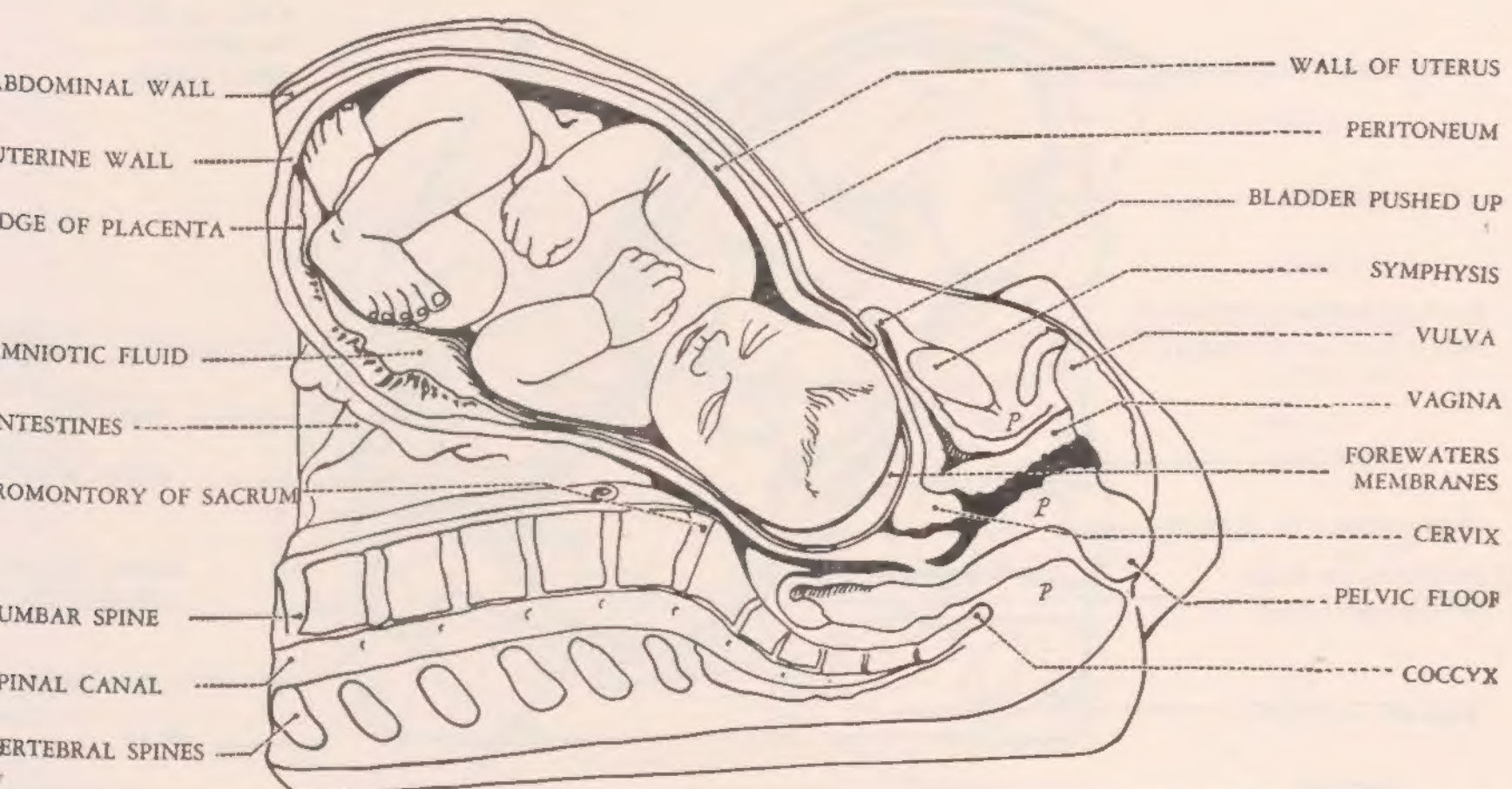
MEMBRANES NOT SHOWN



1/4 LIFE SIZE

AT TERM: THICK PELVIC FLOOR,
CERVIX CLOSED, UTERUS RELAXED

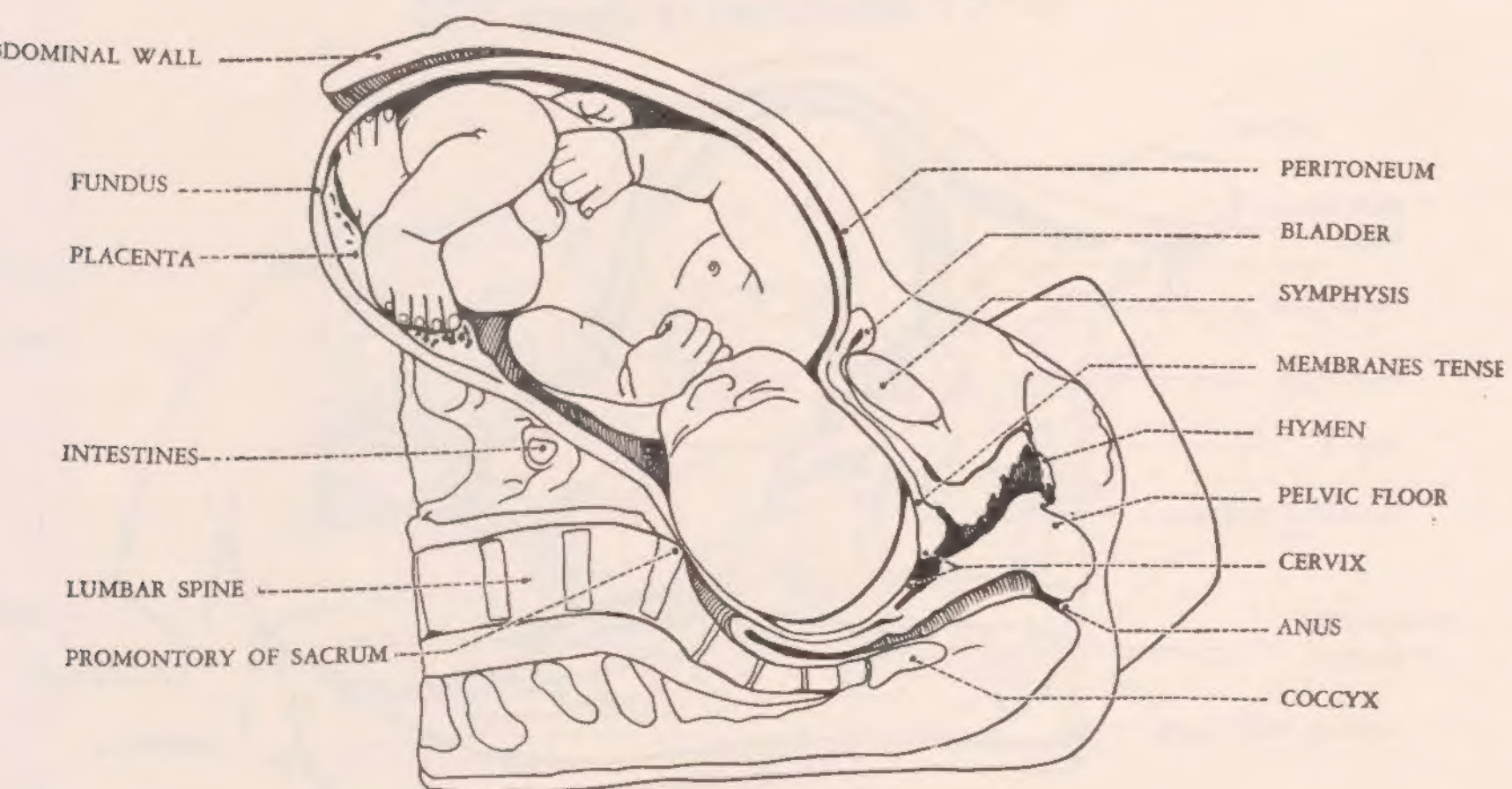
PLATE 8



1/4 LIFE SIZE

IN LABOR: UTERUS IS CONTRACTING,
CERVIX DILATING, BAG OF WATERS BELOW HEAD

PLATE 9



life-size
throughout

Dickinson series
of teaching models

ON FERTILIZATION
STEPS OF GROWTH
STAGES OF LABOR
AND INVOLUTION

ROBERT L. DICKINSON

ABRAHAM
BELSKIE

INTERNATIONAL GYNÆCOLOGICAL ASSOCIATION
NEW YORK 1940

PLATE 10

LABOR: HEAD DEEP IN BIRTH CANAL; PULL OF UTERINE CONTRACTIONS DRAWS CERVIX UP

1/4 LIFE SIZE

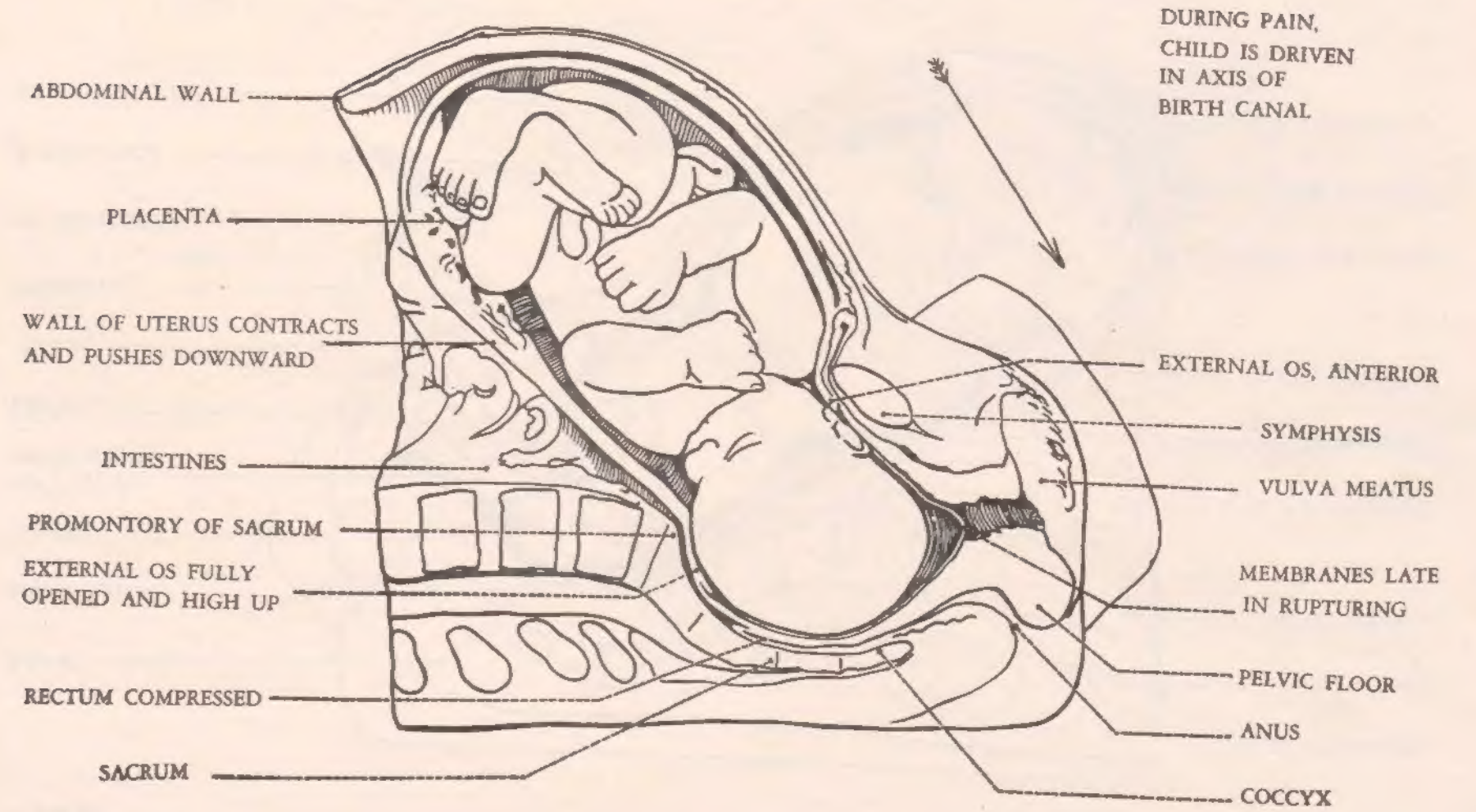
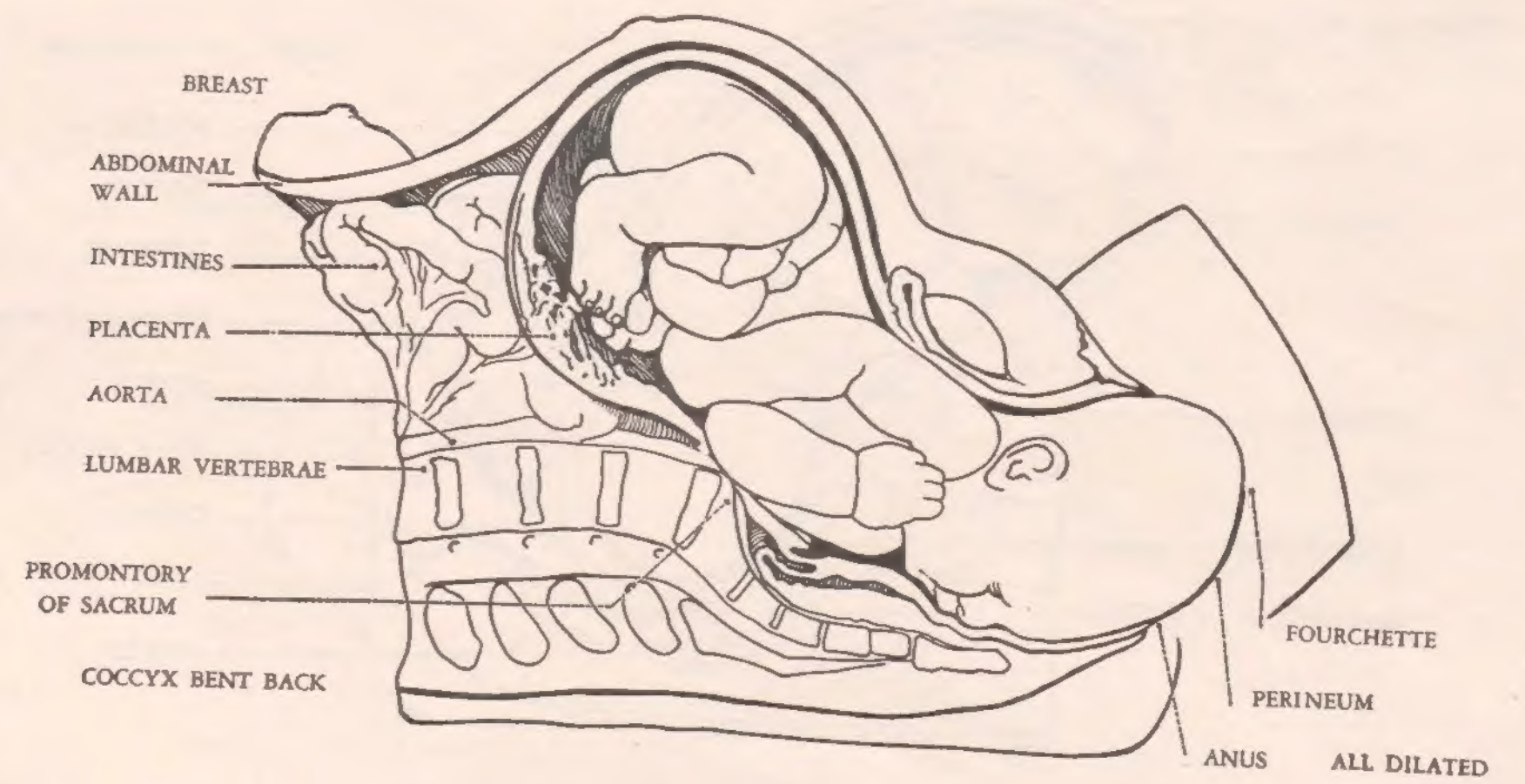


PLATE 11

LABOR: HEAD BEGINS TO APPEAR; MUSCLES OF ABDOMINAL WALL CONTRACT; PELVIC FLOOR BECOMES EXTREMELY THIN

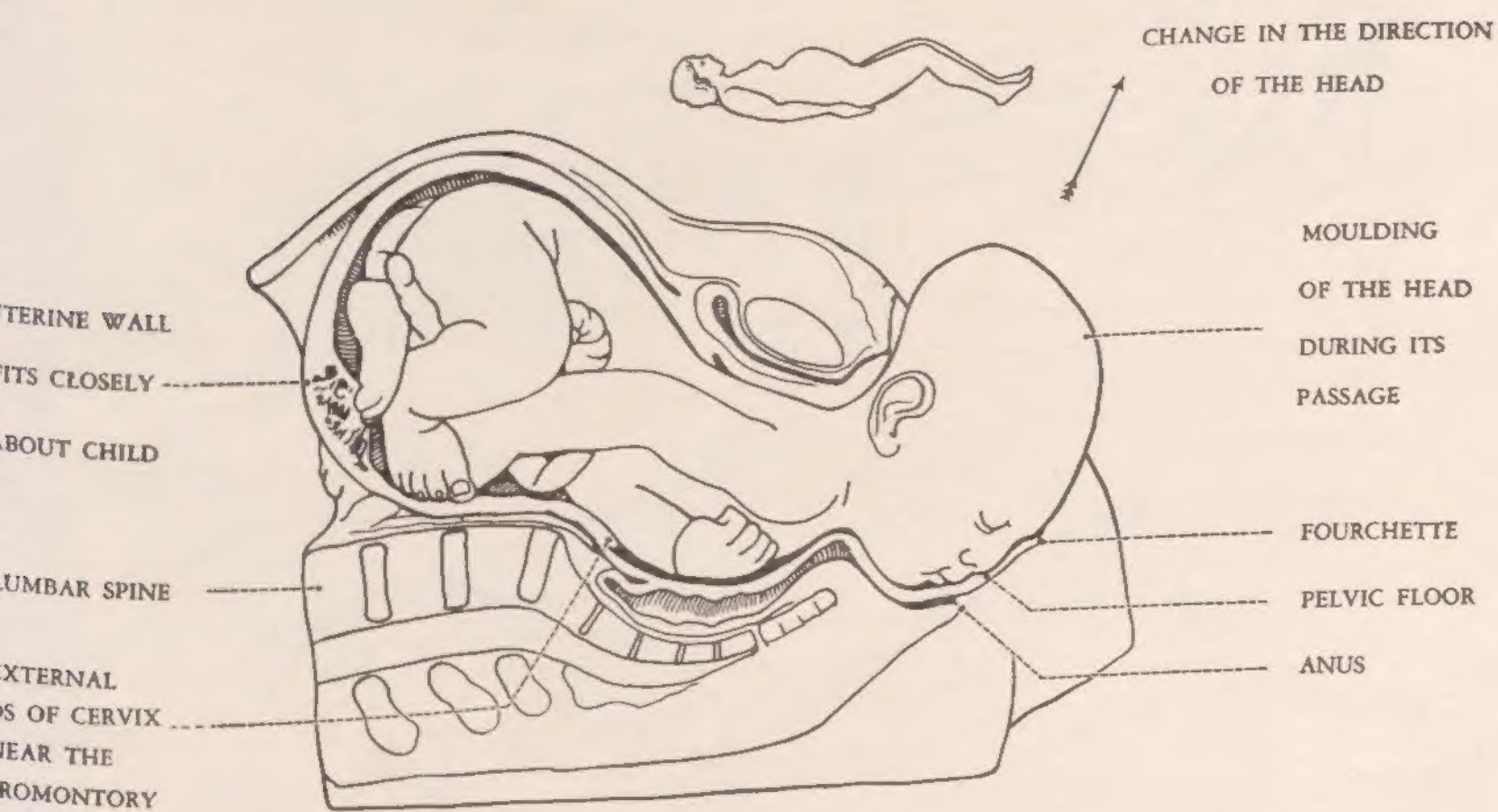
1/4 LIFE SIZE



LIFE SIZE

LABOR: HEAD TURNS UPWARD;
PELVIC FLOOR SLIPS BACK OVER FACE

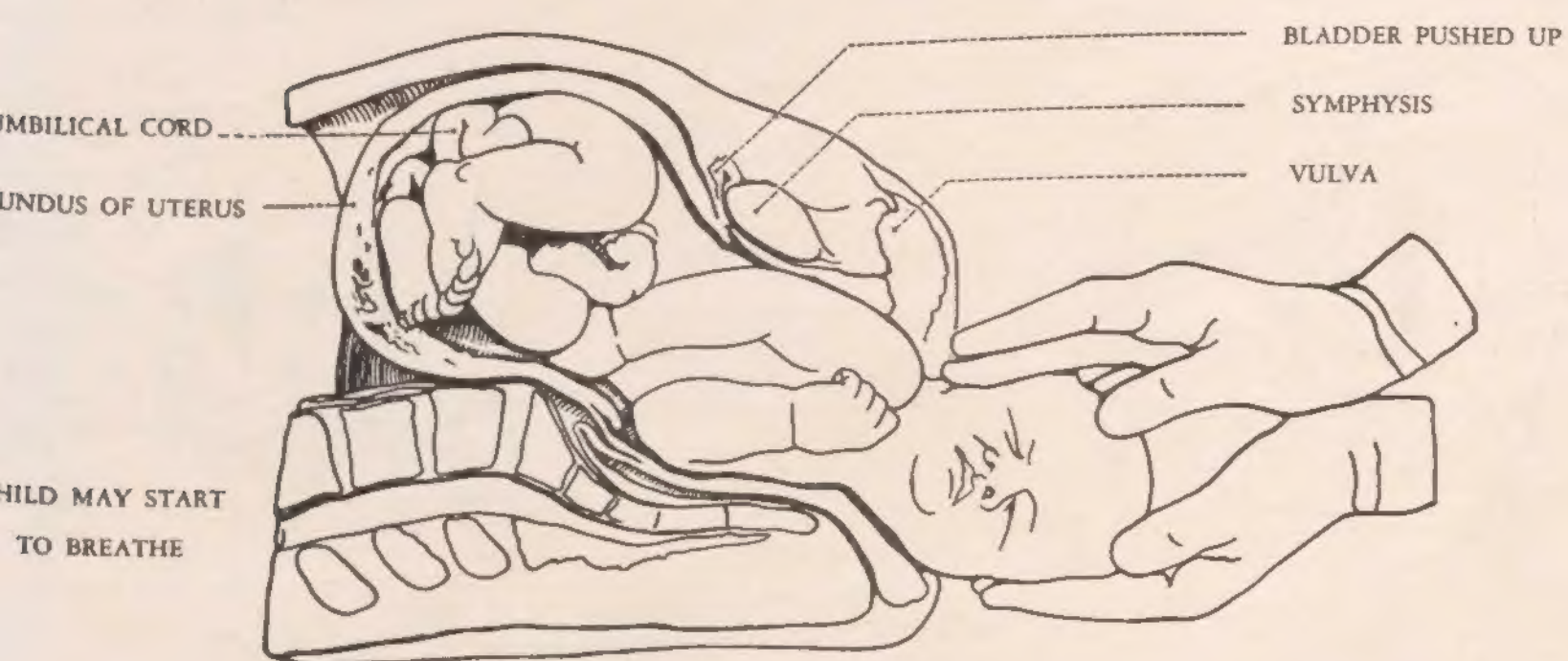
PLATE 12



LIFE SIZE

BIRTH OF THE SHOULDERS,
TURNING TO FIT PASSAGE

PLATE 13



CHILD MAY START
TO BREATHE

life-size
throughout

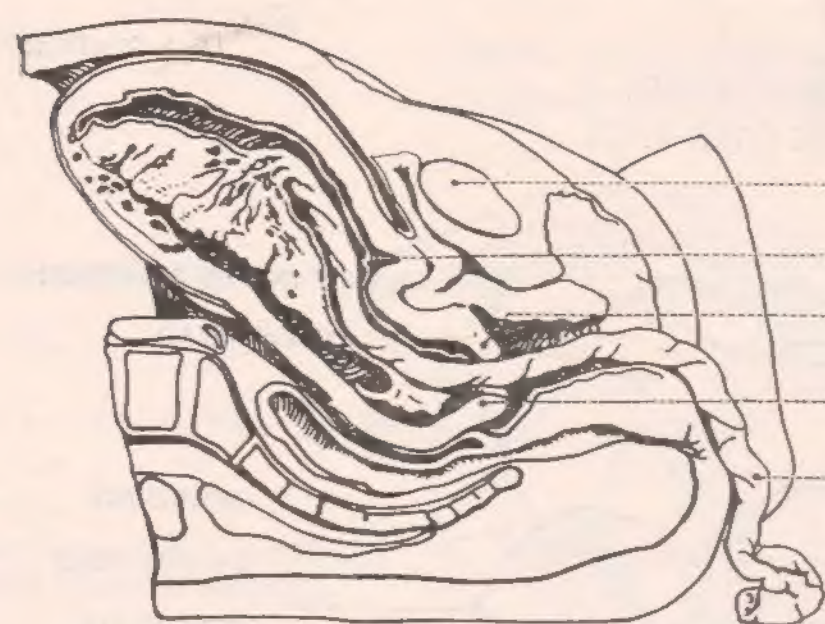
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of teaching models

ON FERTILIZATION
STEPS OF GROWTH
STAGES OF LABOR
AND INVOLUTION

ROBERT L. DICKINSON

ABRAHAM
BEILSKIE

MATERNITY CENTER ASSOCIATION
NEW YORK 1940



PLACENTA AND MEMBRANES SEPARATING

1/2 LIFE SIZE

PLATE 14

UTERUS EMPTY
AFTER EXPULSION OF PLACENTA

RELAXED ABDOMINAL WALL
PLACENTAL SITE
CERVIX

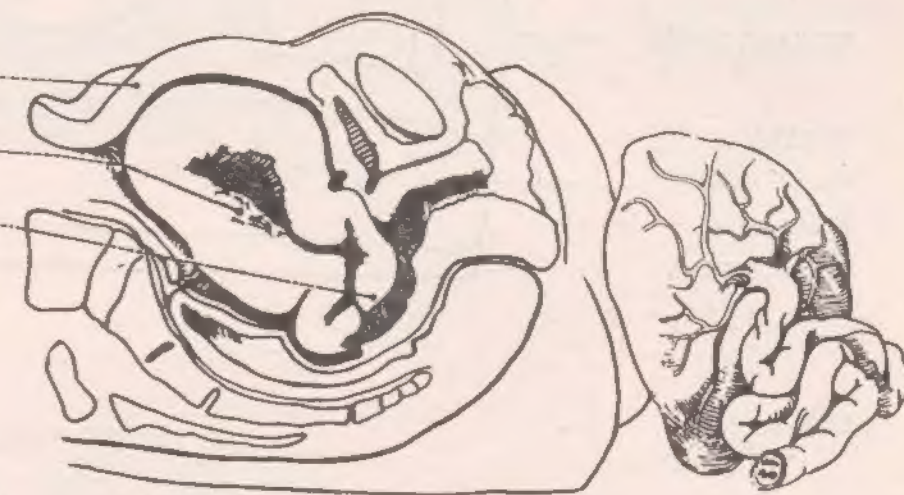


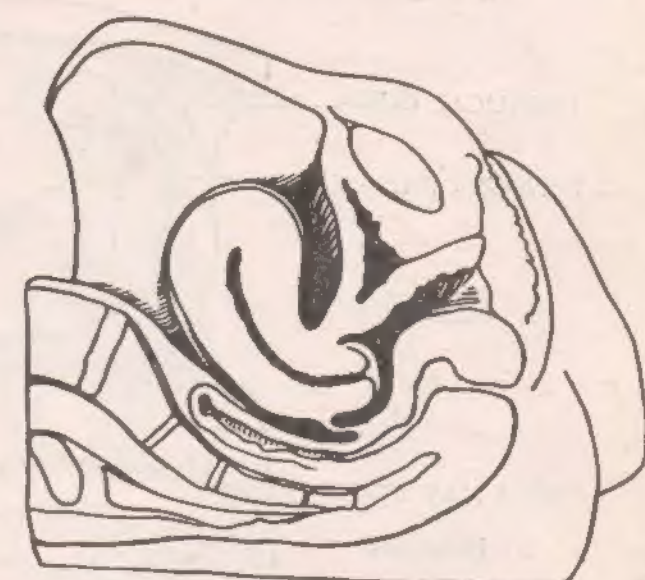
PLATE 14

FIFTH DAY AFTER LABOR

FIFTEENTH DAY AFTER LABOR:
SLOW INVOLUTION



PLATE 15
1/2 LIFE SIZE



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MATERNITY CENTER ASSOCIATION
654 Madison Avenue, New York 21, N. Y.

BIRKBECK ATLAS

CONTWENTYFOURSCULPTURED

CHIEFEMULATIZATION
STEPS OF ANIMAL
STAGES OF LABOR
AND DIVISION

EDUCATION
DICKINSON

GENERAL
BELSKIE

INTERNATIONAL CENTER ASSOCIATION
NEW YORK 1940



Front

Top

Ovary

Uterus

ENLARGEMENT OF UTERUS

AT END OF
PREGNANCY
from 2 inches by 4
to 10 inches by 12
1/2 inches by 10 inches

Dickinson series
of teaching models

Life-size
throughout



POSITION OF
UTERUS WITH
WOMB
LYING DOWN



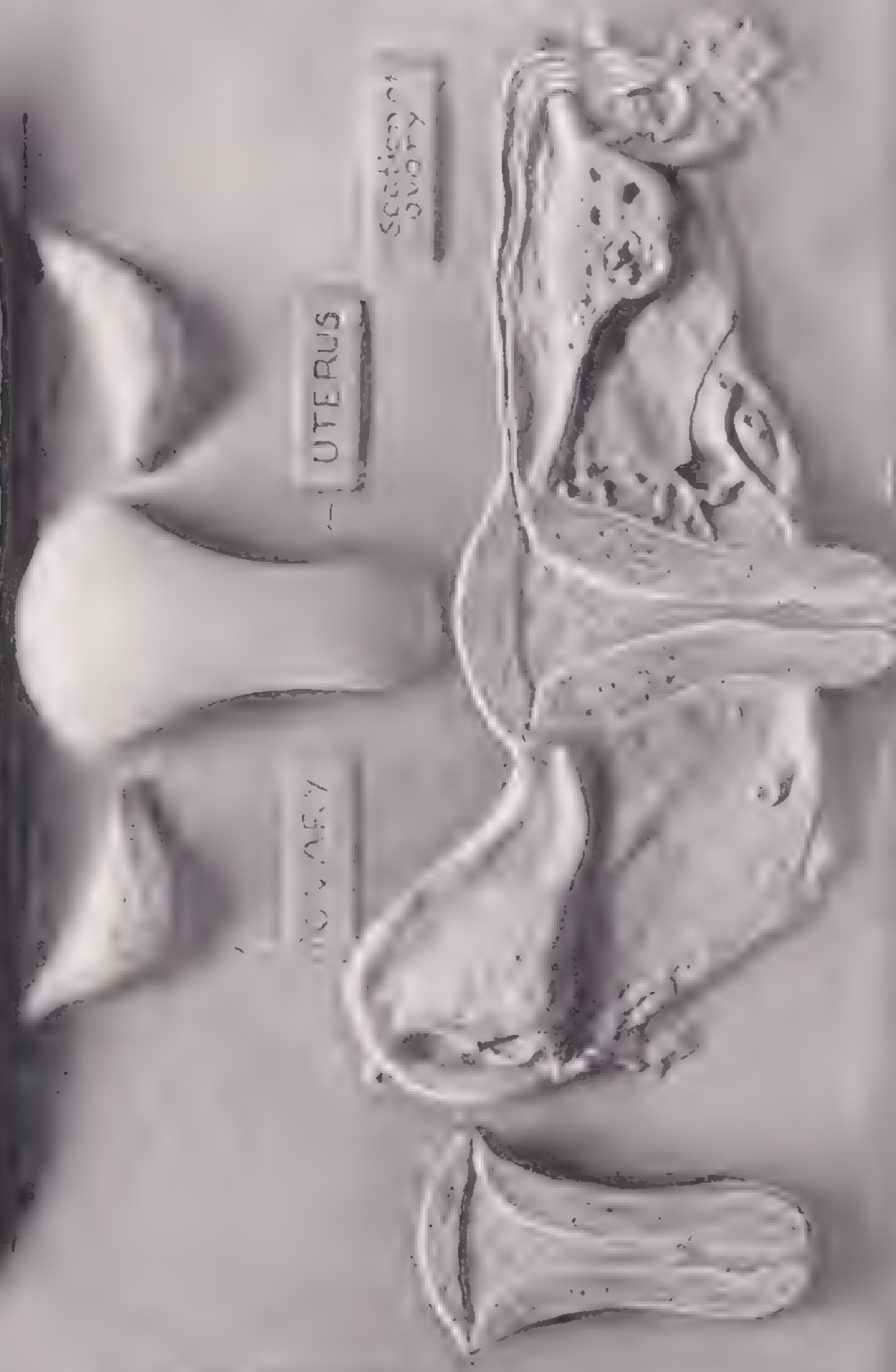
UTERUS AND
OVARIES
FROM REAR
LIFE SIZE



FEMALE PELVIC
ORGANS IN
MEDIAN
SECTION



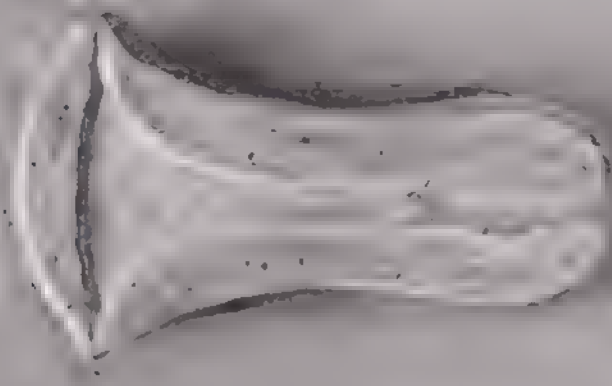
LEFT NEVER
PREGNANT
RIGHT AFTER
PREGNANCY

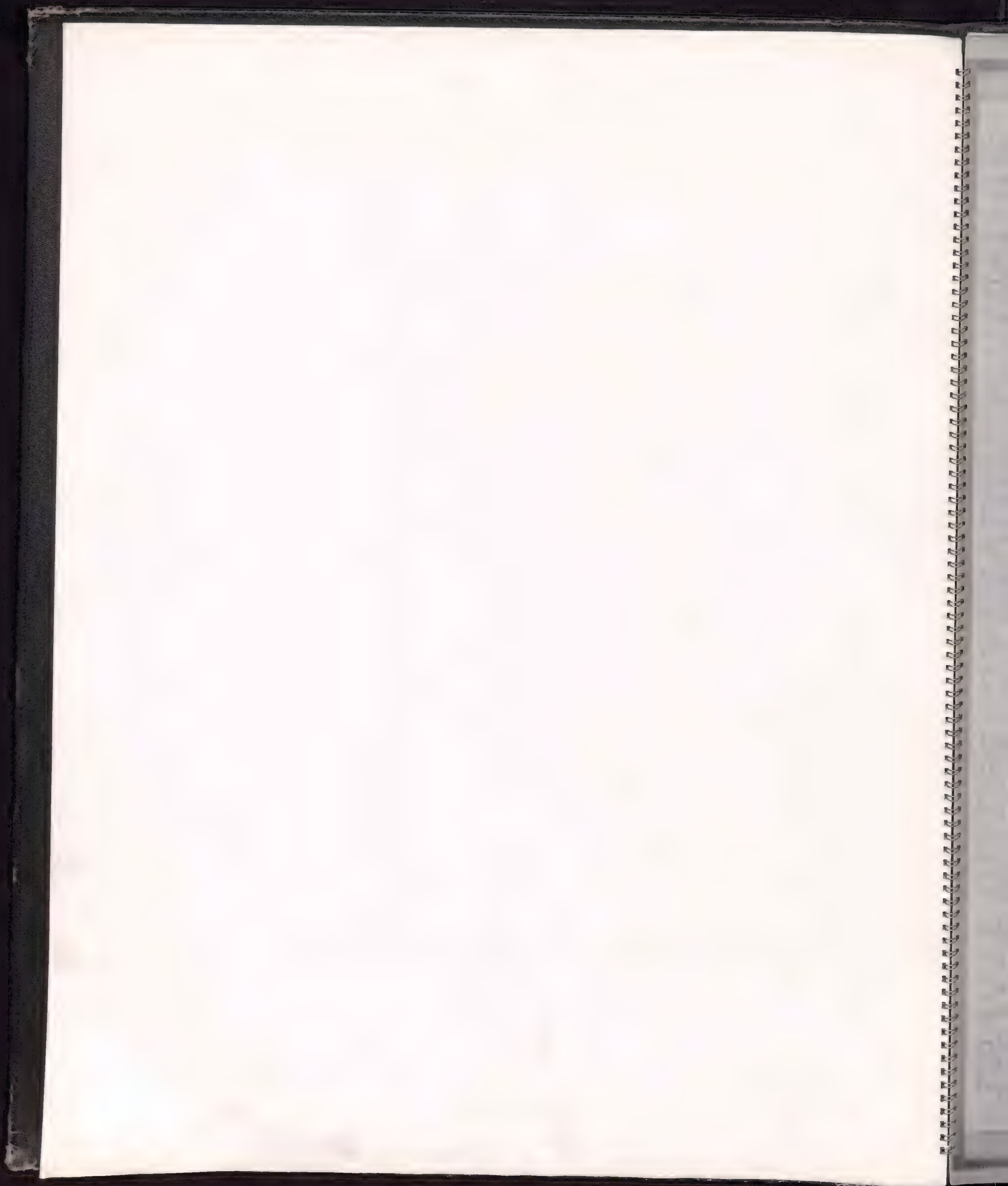


UTERUS

OVARY

SECTION OF
OVARY

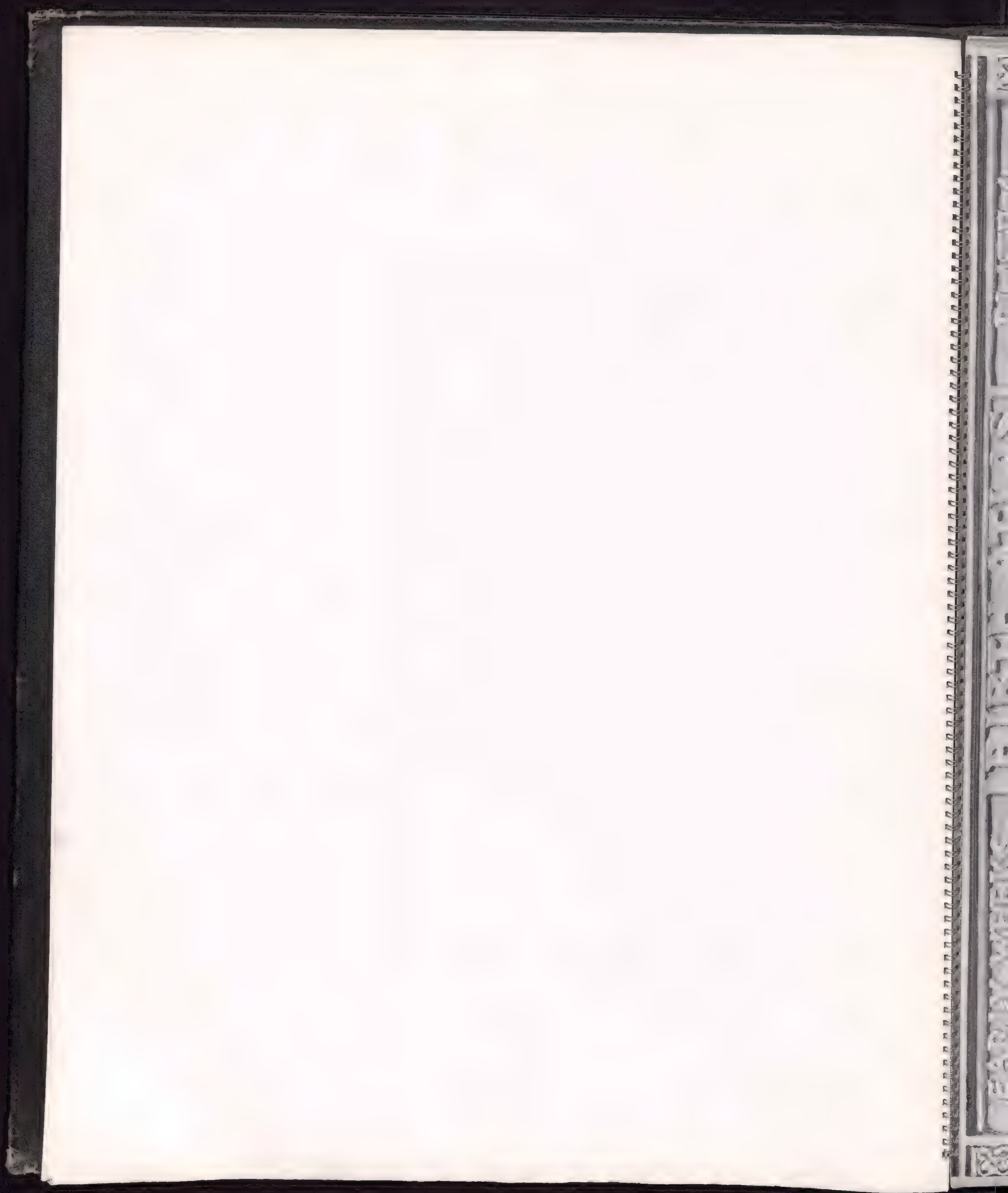






RELATIVE
SIZE OF UTERUS
AND OF
SPERMATOPHYTES
IN THE UTERUS
OF THE FEMALE

The right ovary is shown in its natural position, as it may be from the ovary to implant itself in the uterine cavity; the left ovary is shown in its position in the uterus. Diagram - not made to scale.





4 weeks menstrual age

x 81

6 weeks actual size

x 81

7 weeks undiluted 8 times

from rear

V Fortunato-- R.L. Dickinson '39



2 1/2 months actual size

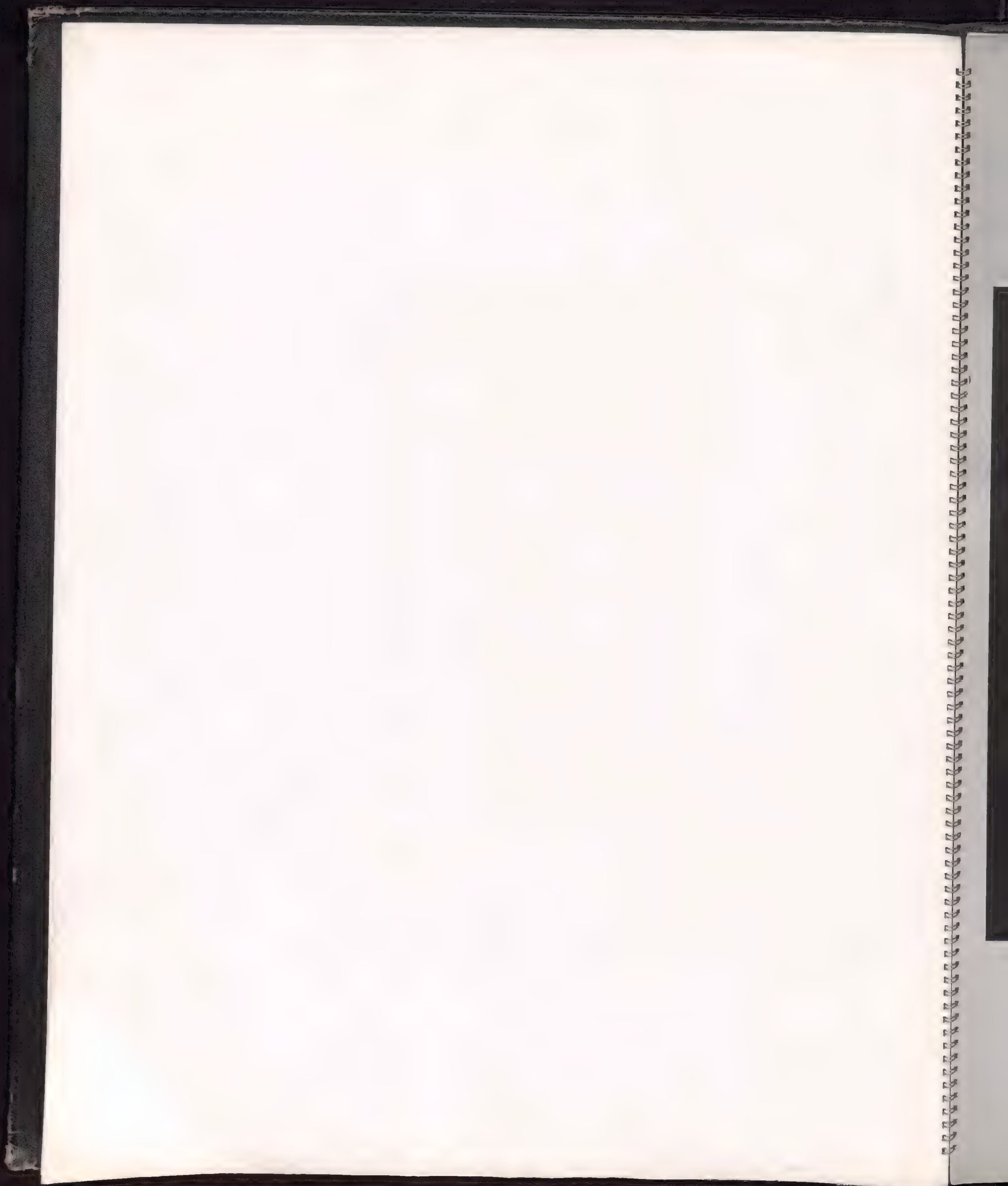
3 1/2 months menstrual age

placenta near center front or rear wall

chorion amnion

decidua vera & reflexa

pickings series



BIRCH ATLAS
PLATE 5





PLANTING OF PLANT THROUGH STEEL WITH THE
ROOTS DIPPING INTO POOL OF WATER.



THE
PLANT
GLOBE
PLANTING

PLANTING OF CHILD THROUGH CORD WITH THE
ROOTS DIPPING INTO RESERVOIR OF THE MOTHER'S
PLACENTAL BLOOD





SEVENTH
MONTH

BIRTH ATLAS N°12
PLATE 7

PLACENTA
OPPOSITE BABY



Adelski
KLDickinson





DIABOR CERNVIX IDILLATING G:Q:AXG:OFX//FLEAS PLATINE9



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CHICAGO, ILLINOIS 60637
U.S.A.







HEAD TURNS UPWARD PELVIC FLOOR KNEE BENDS PLANTAR





RECORDS SECTION
PLATE 14

UTERUS AFTER EXIT
OF PLACENTA: SAGS
INTO PELVIS



DICKINSON'S DELANT

PLACENTA ALMOST
SEPARATED AND
MEMBRANES
LOOSENED



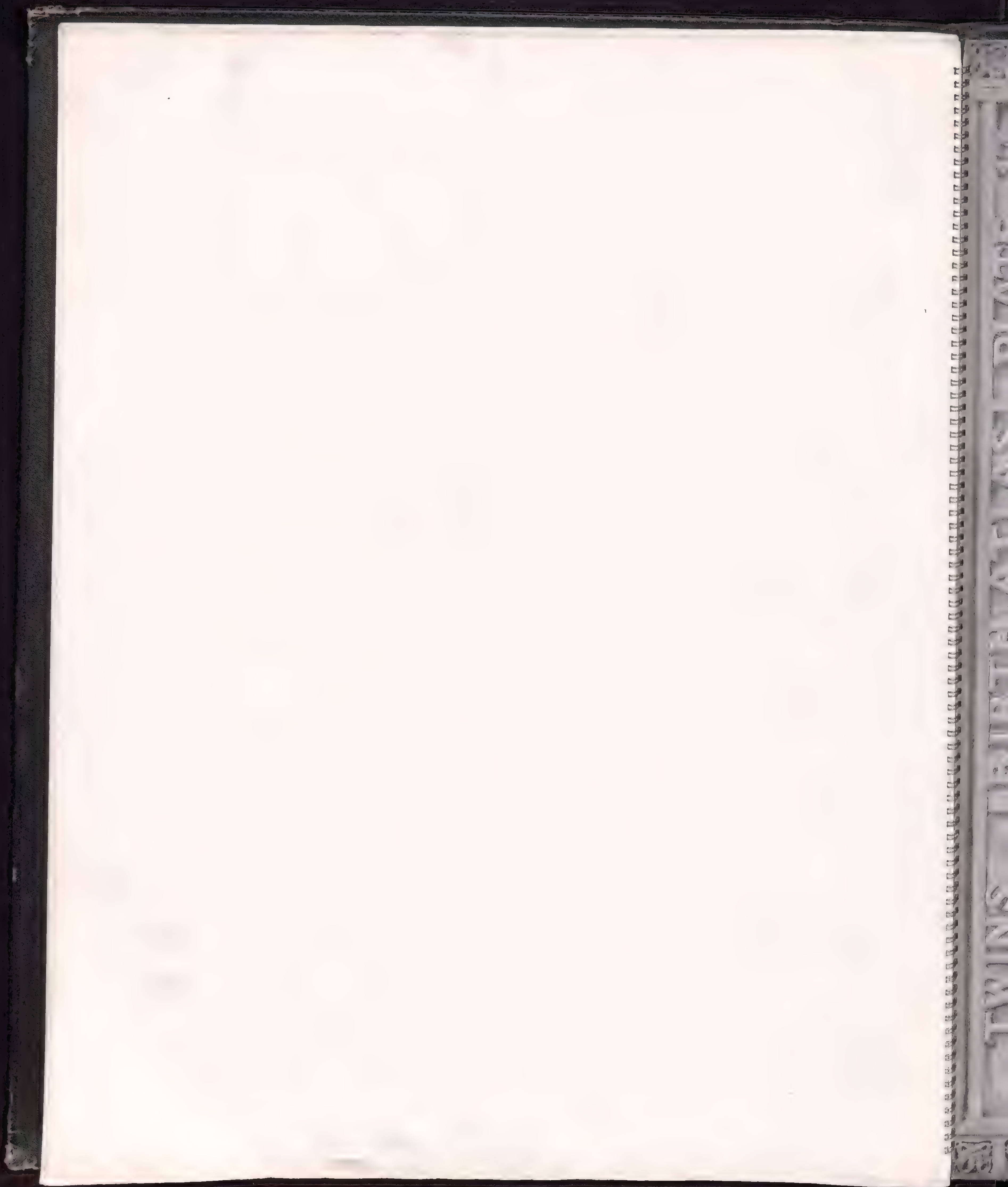


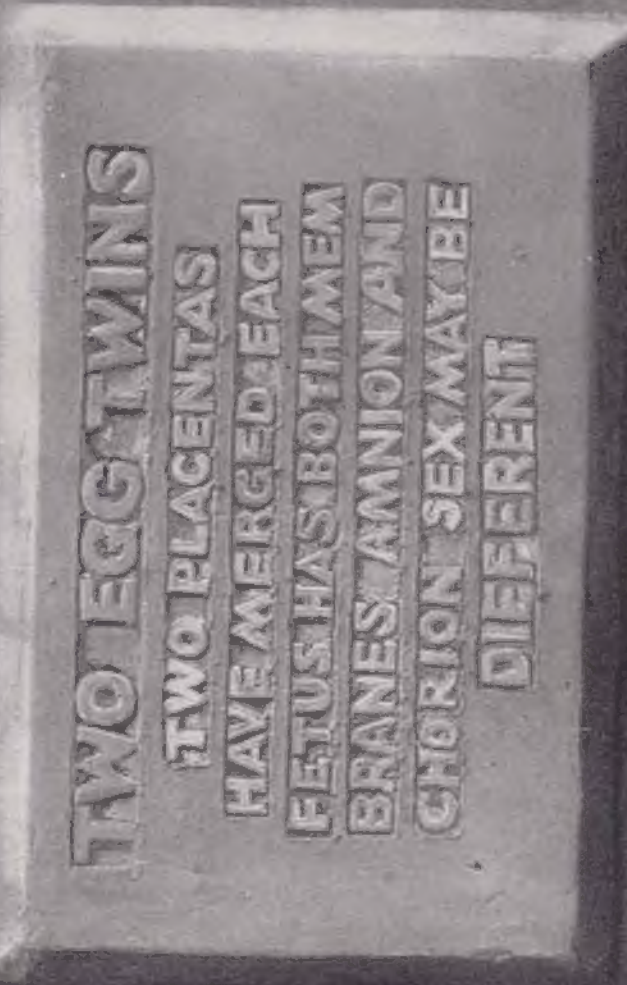
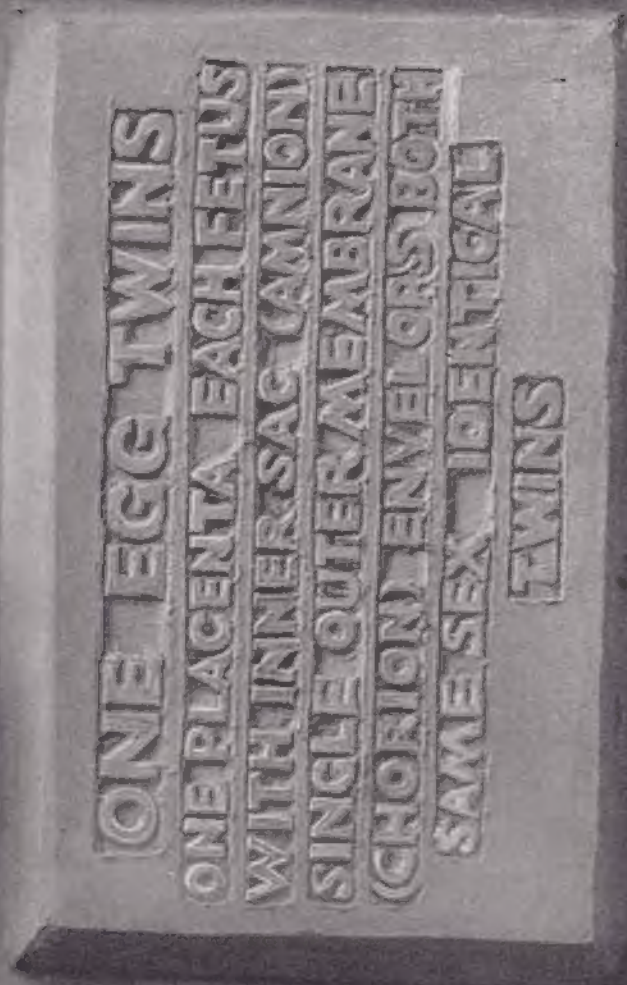
FIFTH DAY AFTER LABOR
INVOLUTION UNDER WAY
MEDIAN SECTION



FOURTEENTH AFTER LABOR
SLOW SHRINKAGE OF UTERUS
IF EXERTION IS EXCESSIVE
DISPLACEMENT OF PROLAPSE





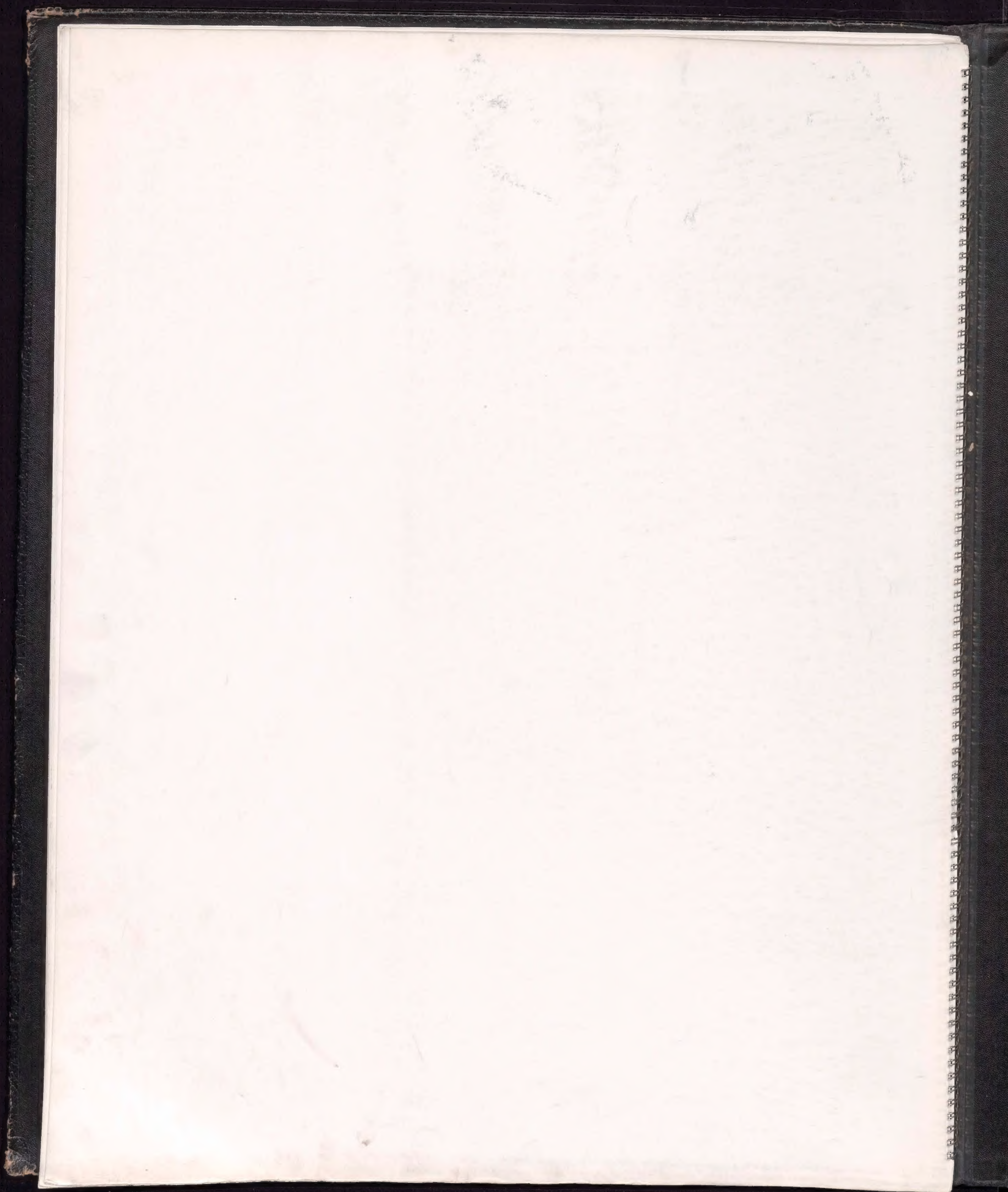


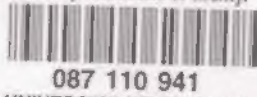
TWIN
PICKINSON

ONE EGG TWINS
ONE PLACENTA EACH FETUS
WITH INNER SAC (AMNION)
SINGLE OUTER MEMBRANE
(CHORION) ENVELORS BOTH
SAME SEX IDENTICAL
TWIN

**TWO EGG TWINS
TWO PLACENTAS
HAVE MERGED EACH
FETUS HAS BOTH MEM-
BRANES, AMNION AND
CHORION. SEX MAY BE
DIFFERENT**

**TWO EGG TWINS
TWO PLACENTAS
EACH FETUS WITH TWO
SACS/AMNION INSIDE
AND CHORION OUTSIDE
SEX MAY BE DIFFERENT
FRATERNAL TWINS**



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